#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017546 Address: 333 Burma Road **Date Inspected:** 06-Oct-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Mr.Oiu Wen. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower and Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

#### NDT

#### **BAY 10**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower façade plate. The weld designations reviewed are as follows.

ED1-SFSA3-45-2A/B, 8, 14, 18, 20,

ED1-SFSA3-46-1, 4, 6,

ED1-SFSA3-32-6, 8, 15, 20, 26, 30, 35, 40, 46, 70, 72,

ED1-SFSA3-29-2-1, 4, 8, 12, 18, 20,

NDT Notification No-06870

This QA Inspector observed the following work in progress:

#### **BAY 11**

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

### **SMAW PROCESS:**

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, 041271, Perform Shielded Metal Arc Welding (SMAW) on Lift 5 bracket stiffener. Joint identified as SD1-BRSA5-1-14A, 10A. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4b.

#### OBG Bike path Bottom plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, Perform Flux Core Arc Welding (FCAW) on OBG bike path bottom plate. Joint identified as BK004A2-020-016, 018 and BK004A2-021-018, 016. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-B-4b-F-1.

## OBG Bike path FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040704, 053316, Perform Flux Core Arc Welding (FCAW) on OBG bike path bottom plate. Joint identified as BK004A1-020-043. ZPMC QC Identified as Mao Bin Bin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-Tc-U4c-F. For more information see below attached picture number 1.

#### **BAY 10**

Tower Facade plate SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 056364, Perform Shielded Metal Arc Welding (SMAW) on Tower façade plate. Joint identified as SD1-SFSA4-29A/B-12, 13, 14, 15. ZPMC QC Identified as Yin Chun Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, Perform Shielded Metal Arc Welding (SMAW) on Tower façade plate. Joint identified as SD1-SFSA3-39-11, 12, 13. ZPMC QC Identified as Wang Hao. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112-Pad eye.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, Perform Shielded Metal Arc Welding (SMAW) on Tower façade plate. Joint identified as SD1-SFSA3-24-11, 12, 13, 14. ZPMC QC Identified as Wang Hao. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112-Pad eye.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, Perform Shielded Metal Arc Welding (SMAW) on Tower façade plate. Joint identified as ND1-SFSA3-21-11, 12, 13, 14. ZPMC QC Identified as Wang Hao. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112-Pad eye.

#### Magnetic Particle Testing:

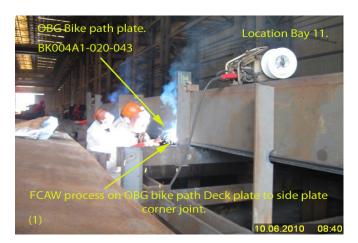
This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performing MT on Tower façade plate. Plate identified as ED1-SFSA3-32, ED1-SFSA3-29. For more information see attached picture number 2.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





# **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer